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HOW TO PREPARE MANUSCRIPTS FOR OUTSIDE PUBLICATIONS

A desk guide for authors and typists

**U.S. DEPARTMENT OF AGRICULTURE
FOREST SERVICE
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HOW TO PREPARE MANUSCRIPTS
FOR OUTSIDE PUBLICATION
A Desk Guide for Authors and Typists

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JUN 30 1980

CATALOGING = PREP.

Manuscripts for submission to non-Government publishers should be organized, stylized [styled], and typed in accordance with the publisher's instructions or sample of recent publications issued by the publisher--Forest Service Manual 1631.18

INTRODUCTION

This Desk Guide is a companion to How to Prepare Manuscripts for Station Publication, first issued in 1977 and now in a revised Second Edition issued in 1979. The basic information on manuscript preparation given there has not been repeated; this guide supplements and extends that one to cover outside publications. To prepare manuscripts properly for submission to outside publishers, one must study and follow both guides.

Correct preparation is even more important for outside publishers than for Station publications, for these reasons: a poorly prepared manuscript for Station publication will cost more and take longer to publish, but it will be published eventually; a poorly prepared manuscript submitted to an outside publisher however, is less likely to be accepted, and lack of attention to details may reflect on the care that went into the scientific work it reports. And a careless submission by one Station scientist may impair the fine reputation that submissions from this Station have earned over the years.

This desk guide will be updated and reissued from time to time as the need appears. We welcome comments and suggestions.

The Station Editors

HOUSE STYLE

Most scientific journals and trade magazines have regular ways of handling the mechanics of converting a manuscript into a printed paper--such things as how the headings are printed, how numbers are given (spelled out or in figures), where the author's affiliation is placed, how literature is cited, and so on. These details are called "style" in publishing, and a journal's choices for them are called its "house style."

The differences between one journal's house style and another journal's may be small, but they are important. Many scientific journals are edited by volunteer scientists and have little or no professional staff. Even those that do have full-time staffs appreciate manuscripts that are prepared in their own style because such manuscripts take less staff time to publish. They also show a higher degree of professionalism--the authors have taken time to study the journal and prepare the manuscript appropriately. Some journal editors return manuscripts that are not in their style.

Many journals print "Instructions to Authors" or supply them on request. These should be read carefully, but they are not sufficient--you must study published copies of the journal to see how it does things. Use a recent copy--style may change from year to year. If you do not have access to a recent copy of the journal, ask the editor to send you one. Give the sample copy to your typist along with any special instructions.

It is important to style the paper correctly for the intended outlet before you submit it to us for editing. Restyling a manuscript can take as much editorial time as substantive editing, and numerous style corrections distract the editor from more important matters. Also, a

heavily corrected manuscript is harder for the typist to read and thus creates more opportunities for error.

WHAT TO LOOK FOR

These are some of the things you should check in a recent copy of the journal and plan to submit your paper to:

Title

Is it centered, indented, or flush left (beginning at the left margin)? All in capital letters? In small ("lower case") letters with important words capitalized? Or with only the first word and proper names capitalized?

Are species names used? If so, how are they printed? In italics? With species author? Is the name of the species author abbreviated or given in full? Are the order and family given? (For a fuller discussion of scientific names see CBE, 4th edition, p. 150.)

Author

Where does the author's affiliation appear? After his name, or in a footnote? Is there a separate biographical note about the author? Is his mailing address, with ZIP code, given?

Abstract

Is the word "Abstract" printed on a separate line, or "run in" on the first line of the abstract? Is it in capitals or italics? (Words to be set in italics should be underscored in typescript.)

Are keywords or index terms included? Where are they placed?

Is the abstract printed in a different size of type from the text? If so, type it on a separate page, because it probably will be typeset by a different operator.

Some journals publish the abstract in more than one language. Most such journals will translate the abstract if the author is not fluent in both languages.

Running head

Some journals ask the author to supply a short version of the article's title for use on the second and subsequent pages of the printed paper ("running head"). Usually a maximum number of characters is specified. Type the running head, if one is required, near the bottom of the title page, unless the journal's instructions specify another place.

Abbreviations

Some journals use figures for all numbers (even below 10), signs (such as %), and abbreviations (wk, amt, avg, diam, prepn, concn) wherever possible, to save space. Most journals use abbreviations for units of measure (ft, yd, min). Most journals require metric units (m, mm, kg, μ g).

Be sure to use current, accepted abbreviations: consult CBE 4th ed. (p. 203-220) and GPO (p. 149-168).

Footnotes

What kind of information is put in footnotes rather than in the text or references?

Are footnotes indented like paragraphs or set in a solid block?

If footnotes are printed in a different size type from the text, type them on a separate page.

Acknowledgments

How are these treated? In the text? In a separate section? In smaller type (if so, type on a separate page)?

Where are they placed? At the end of the text? In a footnote?

Headings

Most journal articles contain headings and subheadings to break up the type and ease reading. Usually there are two or three levels of headings; often each level has its distinctive position with relation to the text.

How many levels are used?

How do they differ? Are they centered or flush left? Upper and lower case or all caps? Italic?

Are all the important words capitalized, or only the first word and proper nouns?

Figure captions

Is the word "figure" spelled out or abbreviated? Are the captions printed like paragraphs, flush left, or with a hanging indent (i.e., the first line is typed flush left and the following lines are indented)?

Tables

Are headings flush left, centered, set like paragraphs, or with hanging indent?

Is there a period after the heading?

Are footnotes indicated by letters, numbers, or symbols?

If the unit of measure covers all the numbers in the table, is it included in the heading or is it over the columns in the body of the table?

Are all the important words in the boxhead and stub capitalized, or only the first word?

Where are single and double rules used in the tables?

References

How are references cited in the text? By author and date or by number?

Does a comma separate author and date?

Are multiple entries separated by commas or semicolons?

How many authors are named for multiauthored papers?

Literature cited

Check wording: some journals use References Cited, References, or Bibliography.

Are papers listed alphabetically by authors or in the order of their mention in the text? Are they numbered?

Does the author's name begin flush left, with the date beginning the second line as a hanging indent, or is it run in as a paragraph?

Are authors' given names used as on the cited paper, or initials only?

Check the abbreviations of journal titles used in the references. Most journals follow the International List of Periodical Title Word Abbreviations published by the International Standards Organization. This is essentially the same list as the 1971 Word-Abbreviation List compiled by the National Clearinghouse for Periodical Title Word Abbreviations and published by the American National Standards Institute, so if you have the 1971 list you may still use it. Some journals do not abbreviate periodical titles at all. Others make certain exceptions: for example, the Journal of Forestry uses the abbreviation USDA (as we do) instead of U.S. Dep. Agric., the abbreviation made from the word list.

Check capitalization in the titles of articles cited. Are only the first word and proper nouns capitalized? Are titles of books capitalized differently from titles of articles?

Are some items set in italics? Which ones? (Italics are indicated in typescript by underscoring).

Is the total number of pages given for books and monographs?

Trade names

Does the journal use a superscript [®] or [™] when a trade name first appears?

Is the symbol repeated in the tables? (This may be required because tables are sometimes reprinted without the text).

Double-check the names of the products to make sure they are accurate--do not follow popular usage, such as plexiglass for Plexiglas.

DISCLAIMERS AND PESTICIDE WARNINGS

Trade names

If commercial firms or trade names are mentioned in your paper, you must include a statement disclaiming Government endorsement:

The use of trade, firm, or corporation names in this publication is for the information and convenience of the reader. Such use does not constitute an official endorsement or approval by the U.S. Department of Agriculture or the Forest Service of any product or service to the exclusion of others that may be suitable. (FSM 1609.11)

Some publishers, such as the Entomological Society of America, use a shortened form, e.g.:

Mention of a commercial or proprietary product does not constitute endorsement by the USDA or the Forest Service.

A short form is acceptable in a journal publication. (The full wording is used in Forest Service publications.)

Available computer programs

If your paper announces the availability of a computer program, it should contain the following statement:

The computer program described in this publication is available on request with the understanding that the U.S. Department of Agriculture cannot assure its accuracy, completeness, reliability, or suitability for any other purpose than that reported. The recipient may not assert any proprietary rights thereto nor represent it to anyone as other than a Government-produced computer program. For cost information, please write [insert name and address of author and field location--do not use address of Station headquarters]. (FSM 6621.52)

For papers submitted to outside publications, these notices should be treated as footnotes.

Pesticides

If your paper refers to pesticides, it must be approved by the Station's Pesticide Use Coordinator, and a precautionary statement should be included as a footnote or in the text. If a pesticide is recommended, the form is:

The pesticide reported on and recommended here was registered for the use described at the time this manuscript was prepared. Since the registration of

pesticides is under constant review by State and Federal authorities, a responsible State agency should be consulted as to the current status of this pesticide. (FSM 2158.74)

In manuscripts that report research findings on pesticides or the use of pesticides in a research project, but do not make recommendations for their use, regardless of whether the material is registered or not, the following statement should be included in the text or used as a footnote:

This publication reports research involving pesticides. It does not contain recommendations for their use, nor does it imply that the uses discussed here have been registered. All uses of pesticides must be registered by appropriate State and/or Federal agencies before they can be recommended.

CAUTION: Pesticides can be injurious to humans, domestic animals, desirable plants, and fish or other wildlife--if they are not handled or applied properly. Use all pesticides selectively and carefully. Follow recommended practices for the disposal of surplus pesticides and pesticide containers. (FSM 2158.73)

OTHER KINDS OF PUBLICATIONS

Flexible format

Trade publications like North-ern Logger and National Maple Sugar Digest often are less rigid in style than scientific journals. They may use a variety of headings in different typefaces to dress up the

magazine, and their articles are usually more journalistic than scientific in tone. If you are uncertain about what style to use, prepare your report in the style of a Station Research Paper (but omit the separate lists of headings and the copy for the library card, which are needed only for Station publications; see the Desk Guide for Station publications, p. 20).

Even if the journal does not use abstracts, include a 50-word summary of the paper with the manuscript for the Station's Annual Report.

Papers in some of the more scholarly journals also may be inconsistent in style (particularly in references); if you notice some differences among the articles, follow the style that seems to predominate in the journal.

Chapter for a book

If your paper is to appear as a chapter in a book of collected papers, usually the publisher or editor of the book supplies general instructions on style so that all contributors will submit papers in a consistent format.

Before preparing your paper, make sure you have whatever instructions are available. If necessary, call or write to the publisher or editor. The typist and editorial office should also receive a copy of these instructions.

Proceedings

Have you been asked to present a paper for a symposium or a conference? Will the paper be published in the proceedings? Often there is no available format to follow because the proceedings originate from a newly formed conference or from a one-time symposium. When preparing the paper, keep in mind:

Deadline. When is the finished paper due? Allow time for review, editing, and final typing.

Format. Have you received special instructions for preparing the paper? If not, are you sure there are none? Check.

Editorial review. Submit double-spaced copy for editorial review even though the final copy may be single-spaced and on special paper.

Special instructions. Make sure the typist and the editorial office receive a copy of any special instructions.

For further information on preparing papers for proceedings, you will find these publications helpful:

Baugh, Tom, and Betty Bell.
1978. Preparing manuscripts for proceedings and compendiums. USDA For. Serv. Res. Note PNW-310.

Biesterfeldt, R. C.
[n.d.] Preparing symposium manuscripts for photographic reproduction. USDA For. Serv. Southeast. For. Exp. Stn., Box 2570, Asheville NC 28802.

Larson, Edwin vH.
1971. A guide for authors of symposium papers. USDA For. Serv. Res. Note NE-144.

In the near future, the Northeastern Station expects to publish a revision of NE-144. It will recommend the style now used for Station papers, and will include detailed instructions for preparing camera-ready copy.

TYPING THE PAPER

Typing specifications

Check the paper requirements. Some journals require paper with line numbers. These are used for reference by reviewers; if the numbers do not line up with the text lines they are confusing, so make sure they align.

Note that figure legends, abstracts, footnotes, tables, and notes on the author are often set in smaller type than the text. Unless the instructions to authors specify otherwise, they should be typed on separate pages, because they may be typeset on a different machine by a different operator.

Double-space all papers submitted for editorial review. This includes those that will eventually be typed single spaced for photographic reproduction. Single-spaced copy does not allow room to mark corrections clearly.

Camera-ready copy. Most symposium proceedings and a few specialized journals such as Mycotaxon are printed from typed copy that is photographed and reproduced. Usually such publications provide detailed instructions and sometimes special paper with margin guidelines printed on it in a light blue that will not reproduce.

Manuscripts for such publications must first be typed double-spaced for technical and editorial review; then the final draft is typed as specified for reproduction. Journals that are reproduced photographically may require a double-spaced manuscript for their review and acceptance before the reproduction copy is typed.

Materials needed for editorial review

Copies. Submit original and one copy.

Control sheet. Don't forget the Publication Control Record, NE/NA 1600-10, properly signed (FSM 1633 Supp. 32). Please make sure the information on it agrees with the title page of the manuscript.

Transmittal memo. The memo submitting the manuscript to the AD and to us should include:

A description of the intended audience.

Name of preferred outlet.

Note on whether the paper has been reviewed by biometrics. Full name and affiliation of each reviewer. This information is sent to the journal editor to give him the option of waiving further reviews or selecting different reviewers.

An explanation of any illustrations. Are they included with the manuscript, to be drafted from rough sketches, or where are they?

Special instructions. A copy of any special instructions about format, paper requirements, or submittal should be included with the manuscript.

Note: After project typists receive training in typing manuscripts for journals, the final typing will be done at the author's field office and the paper will be submitted to the journal, with transmittal letter, by the author. Send a copy of the transmittal letter to the Editorial Section at Broomall. See FSM 1633-5,6, NE Supplement No. 32, August 1979.

Assignments of copyright

Since the new copyright law has become effective, many publishers

require authors to assign the copyright in their manuscripts to the publisher. Usually the publisher supplies a form for the author to sign and sometimes they say that the paper will not be published until the signed form is received.

However, the copyright law specifies that there can be no copyright in products of the Government, and any manuscript written by a Government employee on official time is a Government product. Since there can be no copyright, the author cannot assign it. Some publishers (the Entomological Society of America and the Soil Conservation Society are examples) have recognized this and provide an alternate form on which the author certifies that the paper is Government property and therefore in the public domain. For other publishers, the author should write "in public domain" on the assignment form and return it to the publisher.

RECOMMENDED REFERENCES

BioSciences Information Service.
1978. BIOSIS list of serials: with CODEN, title abbreviations, new, changed, and ceased titles. BioSciences Information Services, 2100 Arch St., Philadelphia PA 19103. Issued annually. The 1977 list contains the names of 12,497 serials, spelled out and abbreviated according to the International Standards Organization system, and also in CODEN, a six-character code for computer retrieval. Useful for determining the correct names of obscure journals.

Council of Biology Editors Style Manual Committee.

1978. Council of Biology Editors style manual: A guide for authors, editors, and publishers in the biological sciences. 4th ed. Council of Biology Editors. Distributed by American Institute of

Biological Sciences, 1401 Wilson
Blvd., Arlington VA 22209

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DeBakey, Lois.

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and authors. C. V. Mosby Co., St.
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Strunk, William, Jr., and E. B. White.

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D.C.

Woodford, F. Peter, ed.

1968. Scientific writing for
graduate students; A manual on
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Am. Inst. Biol. Sci., 1401 Wilson
Blvd., Arlington VA 22209.

SAMPLE PAGES

The following pages are re-
printed from journals and trade
publications representative of the
outlets to which we submit papers.

These pages are marked to show
the kinds of things to look for when
you are preparing your paper for a
specific publication. You will see
why it is necessary to study the
journal for its style preferences:
most of the items marked are not
usually discussed in a journal's
instructions to the author, and they
frequently differ among publications.

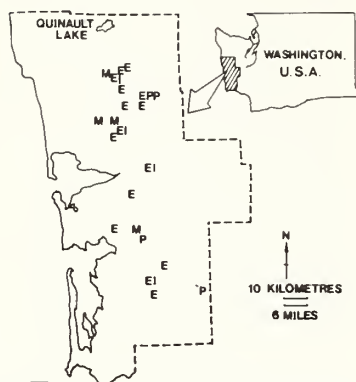


FIG. 1. Location of various study plots (described in text) in transition zone (of western hemlock and Douglas-fir) of the Washington coastal area. Letters represent different types of plots; E = 45- to 80-year stands; M = 22- to 35-year stands; I = 35- to 80-year 'tree sets'; P = plantations 12 years and less.

1). Most of the area was clear-cut in the early 1900's and is now in second-growth stands.

Elevation is under 1000 ft (305 m) with a rolling, hilly topography that is occasionally quite steep. Precipitation is 70 to 100 in. per year (178 to 254 cm). Soils are unglaciated, deep, and fertile. Most land is site quality II (approximately 130 ft (40 m). 50-year index; King 1966). Some sites I and III are present.

Mixed, even-aged stands of three different age ranges were sampled at locations shown in Fig. 1. Fifteen 35- to 80-year-old stands, four 22- to 35-year-old stands, and four plantations established in the past 12 years were studied. Two of the plantations contained natural and planted Douglas-fir together and two contained natural and planted hemlock. Two other plantations of planted Douglas-fir and hemlock with some natural hemlock, all less than 12 years old, were visited to investigate possible mortality rates in young mixed stands.

Procedures and Results

Crown Stratification by Species

Fifteen 35- to 80-year-old stands were examined to determine if crown stratification existed. Two temporary 1/10th-acre (0.04-ha) plots were randomly selected in each stand. The species, diameter at

rates of immobilization of the limited supplies of potassium and magnesium, together with the effective retention of atmospheric inputs, may represent the adaptive mechanism that enables coniferous trees to thrive on soils low in these nutrients. However, high rates of immobilization and low atmospheric inputs mean that this mechanism is not sufficient to guarantee supplies of nitrogen and phosphorus. This is despite the fact that the cycle of both these elements is tight, losses beyond the rooting zone being negligible, and that, at least for nitrogen, all the atmospheric input is retained. For these elements, then, the trees have to rely on obtaining nutrients from intractable soil sources, and here, presumably, the mechanism has been the evolution of the mycorrhizal relationship, a relationship that confers a particular advantage in obtaining nitrogen and phosphorus from poor soils (Harley 1969). Indeed, the fact that mycorrhizal fungi appear to be most efficient at obtaining phosphorus for the host plant may explain why deficiencies of this element in established forests are reported less frequently than are deficiencies of nitrogen.

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DUVIGNEAUD, D., and S. DENAEYER-DE SMET. 1970. Biological cycling of minerals in temperate deciduous forest. In Analysis of temperate forest ecosystems. Ecological studies 1. Edited by D. E. Reichle. Chapman and Hall Ltd., London. 198: 117-101-0-8, pp. 159-275.

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No comma in literature refs.

Initials only, for author's given name.

Article in book — one style.

Legend in paragraph style with abbreviation.

Metric equivalents required

Figure abbreviated in text.

Numbers under 10 spelled out.

Labels on vertical axis must be horizontal.

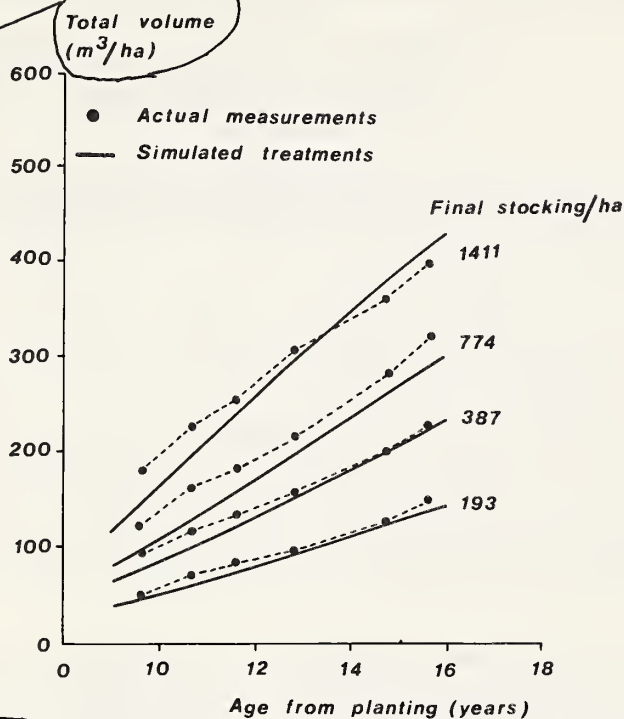


FIGURE 6b. Simulated and actual total volumes for two thinning experiments in Tanzania—Experiment 661, *Pinus patula*.

Spelled out

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"Forest" spelled out as first word of unit; otherwise, abbreviated (example: *Can J For Res*).

No periods with abbreviations.

Editors follow title, in parentheses.

Potato Glycoalkaloids: Effect on Survival and Feeding Behavior of the Potato Leafhopper^{1,2}

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Cornell University, Ithaca, NY 14853

ABSTRACT

J. Econ. Entomol. 72: 337-341 (1979)

Total glycoalkaloid (TGA) fractions, extracted from foliage of 10 differentially-resistant *Solanum* species, were fed to nymphs of *Empoasca fabae* (Harris) at concentrations equivalent to those of fresh foliage. The effects of TGA extracts on nymphal survival and on feeding behavior were assessed. Specific components of the feeding process were identified by use of an electronic recording system.

Mean nymphal survival hours and salivation-ingestion periods ranged from a low of 2.7 h and 5.3 min, respectively, on extracts of *S. hougasii* Corr. foliage to a high of 47.7 h and 18.1 min, respectively, on extracts from *S. bulbocastanum* Dun., corresponding to a 38-fold difference in TGA concentration. Nymphal survival and duration of settling, salivation-ingestion, and nonfeeding were significantly correlated with TGA concentration ($r = -0.86, -0.79, -0.93, \text{ and } 0.82$).

Although these findings provide further evidence of a causal role for potato glycoalkaloids in leafhopper resistance, TGA extracts from 2 species, *S. berthaultii* (PI 218215) and *S. chacoense* (WRF 888), were considerably less limiting to survival than expected on the basis of concentration alone. These discrepancies may be due to differences in levels of individual glycoalkaloids. The specific glycoalkaloid, tomatine, e.g., significantly limited the duration of salivation-ingestion at concentrations as low as 0.05%. Levels, types, and biological activity of individual glycoalkaloids in *Solanum* species need to be characterized before the full significance of these steroidal glycosides in leafhopper resistance can be understood.

Potato glycoalkaloids, a class of toxic nitrogen-containing steroidal glycosides, have been implicated as resistance factors against 2 insect pests of potato, the Colorado potato beetle, *Leptinotarsa decemlineata* (Say) (Kuhn and Löw 1955, Schreiber 1957, Pierchalski and Werner 1958), and the potato leafhopper, *Empoasca fabae* (Harris) (Dahlman and Hibbs 1967). Tingey et al. (1978) reported that foliar concentration of total glycoalkaloids (TGA) in wild *Solanum* species and field infestations of *E. fabae* nymphs were highly correlated ($r = -0.75, P = 0.01$), suggesting a defensive role for these compounds. We report here results of feeding studies with TGA fractions from the same accessions studied by Tingey et al. (1978) and demonstrate the relationship between TGA concentration and nymphal performance.

Materials and Methods

Germplasm and General Procedures

True seed of 11 accessions of wild, tuber-bearing *Solanum* species (*S. berthaultii* Hawkes, PI 265858, PI 218215; *S. brachycarpum* Corr., PI 275179; *S. bulbocastanum* Dun., PI 275194; *S. chacoense* Bitt., WRF 888, PI 189220; *S. hougasii* Corr., PI 161174; *S. kurtzianum* Torr., WRF 335; *S. medians* Bitt., PI 283081; *S. polyadenium* Greenm., PI 175444; *S. stoloniferum* Schlecht. and Bché., PI 243458) were obtained from the Potato Introduction Station, Sturgeon Bay, Wisc., and sown in a peat-vermiculite soil mix on Apr. 12,

1977. After emergence, seedlings were treated with a soil drench of fenamiphosulf at 0.2 g/liter for control of soil pathogens. Seedlings were transplanted to Howard gravelly loam soil at the Thompson Vegetable Research Farm of Cornell University at Freeville, N.Y., on May 26, 1977, in a randomized complete block design of 3 replications. Individual plots were 2.7 m in length and contained 6 clones/accession spaced 91.4 cm within the row and 86.4 cm between rows. Cultural practices and foliage sampling procedures were the same as those reported by Tingey et al. (1978).

Preparative Isolation of TGA Fractions

Subsamples (5 g) of finely ground, lyophilized foliage were homogenized by a Polytron® for 5 min in 100 ml 5% acetic acid. The resulting TGA extracts were filtered and the volumes of the filtrates were recorded. Duplicate aliquots (equivalent to 1 g foliage) of each extract were stored for later TGA analysis. The remaining extracts were placed in a 70°C water bath and the pH was adjusted to 10 and maintained at that level by drop-wise addition of concentrated NH_4OH . Precipitation of TGA was apparent after 5 min at this pH and was completed by cooling the extracts to 0°C for at least 5 min. The TGA precipitates were concentrated by centrifugation at 9,000 g for 8 min, after which they were washed 3 times with 1% NH_4OH and taken to dryness at 70°C. The precipitates were dissolved by sonication at 65°C in 20 ml methanol, to which ca. 0.5 mg decolorizing carbon was added. The mixture was filtered, evaporated to dryness at 70°C, and stored at 4°C until needed for the feeding studies.

Analysis of TGA

Duplicate aliquots of crude TGA extract (equivalent to 1 g foliage) were taken for TGA analysis and treated

¹ Homoptera: Cicadellidae.

² A publication of the Cornell University Agric. Exp. Stn., New York State College of Agriculture and Life Sciences, a Statutory College of S.U.N.Y. Received for publication Jan. 3, 1979.

³ Present address: International Potato Center, Apartado 5969, Lima, Peru. Please address reprint requests to the 2nd author.

⁴ Department of Entomology.

⁵ Department of Plant Breeding and Biometry.

- All important words capitalized.
- Superscript numbers for footnotes:
taxonomic name, date MS. received,
author's affiliation, etc. (see below).
- Journal identification (issue and page numbers
completed by journal).
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whenever possible.
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words capitalized.
- Footnotes should be typed on a separate page.

Running head — author
to supply.

(BOBWHITE POPULATION RESPONSES • Roseberry 305

BOBWHITE POPULATION RESPONSES • Roseberry 287

was considered random. In this segment of the model's "year," habitat variables were treated as constants, length of snow cover was randomly generated from an empirical distribution, and post-hunt population size was carried forward from the previously described set of calculations. Computations for this segment were as follows:

$$BPOP_i = WPOP_i(1 - WMRT_i)$$

where

$$WMRT_i = 0.503$$

$$- \left[0.1559 \left(1.74 - \frac{WPOP_i}{K} \right)^2 \right] + (0.000078 SNOW_i^2) + E$$

with $K = 415$, $SNOW_i = f(x)$, $E = N[0, 0.05]$, and $WMRT_i \geq 0.0$.

Do not break
elements that
are separate
entities within
an equation.

Breeding Season.—The final calculations necessary to complete 1 annual

cycle or model "year" involved recruitment of juveniles into the pre-hunt population. The breeding population computed during the previous segment ($BPOP_i$) experienced a calculated rate of recruitment (REC_i) and the result became the next fall population ($FPOP_{i+1}$). Annual rate of summer gain (REC_i) was a negative, curvilinear function of breeding density in relation to carrying capacity ($BPOP_i/K$). The density-recruitment curve suggested by the original data was modified in its right limb so that predicted recruitment for a breeding density at K was 0 (Jensen 1973). The CRA data revealed an interaction between length of snow cover the previous winter ($SNOW_i$) and the winter density/ K ratio such that their negative effect on productivity was multiplicative rather than additive (Roseberry and Klimstra 1972:274-275). Variables that positively influenced productivity were total rainfall during the prebreeding season of late March and

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third-level head.
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words capitalized.

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Accepted 17 August 1978.

→ Lit. cite.,
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→ Article in
proceedings or
book. Note position
of page numbers,
in, editors, proceedings,
title.

→ Dash used for
second entry by
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ABSTRACT

The distribution gradients of arsenic and chromium in soil around and below nominal 50- by 101-mm (2- by 4-in) southern pine stakes that were treated with either chromated copper arsenate (CCA Type I or Type II) or in ammoniacal copper arsenate (ACA) and exposed for nearly 30 years in Poarch fine sandy loam soils in southern Mississippi indicate that the small amounts of As and Cr that move from the stakes into the soil are sorbed by the soil proximal to the stakes. The distribution gradient for copper about the stakes is similar to those for As and Cr, but is less precise. These findings support the hypothesis that CCA- and ACA-treated wood, at least in acidic soils such as the Poarch fine sandy loams, will not contribute significant amounts of As or Cr into surrounding soils and waters.

→ Metric units with English equivalents.

Additional Index Words: wood preservative, wood foundation, timber pests, decay fungi, termites, CCA, ACA.

→ "Index Words" - different form for Keywords, Key Words, Index Terms.

Inorganic wood preservatives generally have a history of safe use (Barnes, 1970; Stranks, 1976) and the successful performance of these preservatives has enabled the development of residential foundation systems constructed entirely of pressure-treated wood (NFPA, 1973). This development emphasizes the need to assess the potential for environmental contamination through use of wood treated with inorganic, salts-type preservatives that contain copper, arsenic, and chromium.

→ Comma between author and date; semicolon between multiple refs.

Throughout the world, the primary objective of tests that have exposed treated wood materials in ground contact has been to evaluate the performance of the preservatives for protecting wood against biodeterioration. Adequate monitoring of potential changes in soils around experimental test units has been minimal (International Research Group on Wood Preservation. 1969. Unpubl. Rep. Literature survey on the permanence and distribution of salt-type wood preservatives. IRG, Princes Risborough Lab., Aylesbury, England). Recently, Arsenault (1975) measured arsenic concentrations in soils around salts-treated poles in North Carolina (clay soil) and posts in Florida (sandy soil). He observed no apparent lateral transfer of arsenic beyond 152 mm (6 in) from the treated wood.

This study evaluates the changes in arsenic, copper, and chromium content of soils surrounding southern pine stakes treated with preservatives and retention levels that closely approximate those currently used in wood foundations.

¹ Contribution from the U.S. Dep. of Agric. For. Serv., For. Prod. Lab., Madison, WI 53705. The Laboratory is maintained in cooperation with the University of Wisconsin, Madison. Received 27 Feb. 1978.

² Plant Pathologist, USDA-FS, For. Prod. Lab. This research was commenced while deGroot was located at USDA-FS Southern For. Exp. Stn., Gulfport, Miss.

³ Mathematical Statistician, USDA-FS, Southern For. Exp. Stn., New Orleans, La.; Research Specialist, USDA-FS, For. Prod. Lab., Madison, Wis.; and Analytical Chemist, Pestic. Monit. Lab., Tech. Serv. Div., Off. of Pestic. Progr., USEPA, Bay St. Louis, Miss., respectively.

→ Postal service abbreviation and zip code in address.

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Article title in quotes. All important words capitalized.

Book title in italics. Same capitalization.

Name of journal spelled out, in italics.

All author names inverted.

Month given instead of issue number of journal.

City precedes name of publisher. Number of pages omitted.

This research (5, 6) also indicated that withdrawal strength from end grain should be about 79 percent as great as from side grain. Withdrawal strength from the end grain of Press-Lam corrected to 6 percent MC was 600 pounds, only 65 percent as great as from side grain. Corresponding predicted strength values for solid red oak and yellow-poplar would be 1,055 and 595 pounds, respectively. In this case, the Press-Lam had 60 percent of the withdrawal strength of solid red oak and 101 percent of the withdrawal strength of yellow-poplar.

Literature references by number system (see below).

Units of measure and percent spelled out.

In the case of dowel withdrawal strength from the face and edge of Press-Lam, other work by the senior author (2, 8) indicates that the predicted withdrawal strength of 3/8-inch diameter sugar maple dowels embedded 1 inch in the side grain of red oak would be 1,486 pounds at 6.3 percent MC. Similarly, the predicted withdrawal strength from yellow-poplar would be 1,309

Moisture content abbreviated.

TABLE 5. — Lateral shear strength of screws embedded in the end grain of Press-Lam.

Rail width (in.)	No. of specimens	Mean shear force (lb.)	Std. dev. (lb.)
3	40	678.0	103.3
4	40	665.9	100.0
Combined widths	80	672.0	101.6

Caps.; second line of title, centered; final period.

Double rules.

TABLE 6. — Withdrawal strength of dowels embedded 1 inch in the edge, face, and end grain of Press-Lam.

Type of test	No. of specimens	Mean MC (%)	Mean withdrawal strength (lb.)	Strength deviation (lb.)
Edge withdrawal	40	6.3	1,000.8	159.4
Face withdrawal	40	6.3	1,016.2	154.9
Combined Face and Edge	80	6.3	1,022.7	157.7
End withdrawal	40	6.1	1,390.6	193.3

Periods with abbreviations; units above rule.

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Items in alphabetical order, numbered.

Note inconsistencies in style and abbreviation (underlined). In case like this, follow Station style and standard abbreviations.

stages of the disease. But injection combined with pruning increases the chances of successful therapy both in the early stages and when the disease is somewhat more advanced. Since early detection is seldom achieved, limb and trunk injection followed by pruning enhances considerably the chances of saving elms.

It is important to note that injection plus pruning is only one tool, and that this treatment does not take the place of the prompt sanitation and spray programs, which are the mainstays of successful DED control for municipalities.

Table 2. Relationship between amount of clear wood removed and survival of elms that were pruned or injected with Lignasan BLP and pruned, indicated by number of elms treated and percent with no active wilt in September 1977.

Treatment (1976)	5 feet or less of clear wood		More than 5 feet of clear wood		x ² Value of treatment ^b
	No. elms treated	% elms free of active wilt	No. elms treated	% elms free of active wilt	
Pruning (No. 1)	29	17.2	14	64.3	9.52
Limb injection, pruning (No. 2)	30	20.0	9	88.9	14.28
Trunk injection, pruning (No. 3)	54	31.5	10	90.0	11.98
Trunk and limb injection, pruning (No. 4)	33	39.4	9	88.9	6.93
x ² value of treatment ^b	—	S.D.6	—	3.79	

^ax² = 6.63 at P < 0.01
^bx² = 7.86 at P < 0.05

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The authors thank John Gordon and Lew McGreevy for technical assistance, and Drs. Eugene Himelick, Francis Holmes, and Lawrence Schreiber for their valuable reviews of this paper. The authors also are grateful for services provided by the City Parks and Recreation Department, Shaker Heights, Ohio, and the Department of Public Works, Elmhurst, Illinois.

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USDA Forest Service
Northeast Forest Experiment Station, and
Northeastern Area
State and Private Forestry, respectively
Delaware, Ohio

Author affiliation
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Final period.

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abbreviations.

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Figure Legends & Tables

Note differences.

For each journal, look at text to see how legends are printed. Type them in that style.



Figure 8. Coarse, washed till that supports primarily beech with an occasional sugar maple.

Forest Notes



FIGURE 1. Geometrid, *Eupithecia longipalpa* (identified to genus and group (*palpa*) but species identification not yet positive), a significant cause for loss of seed in 1972, 1973, and 1974 inoculations.

Forest Science



Half-cord, 360-degree rotating grapple holds stems in place while cut is being made (top); operator deposits shortwood on rail car (center); remaining lengths are pulled into bucking position (bottom).

If figure number is not used in caption, type number in the margin to the left of the caption for identification.

Forest Industries

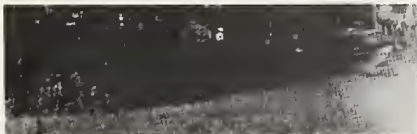


Fig. 1. Ditching for underground utilities was the apparent cause of loss of this group of post oaks which will not afford expected shade to this Texas home.

Journal of Arboriculture

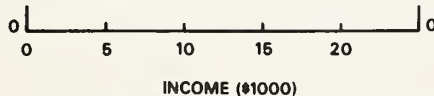


FIGURE 1

ABSOLUTE AND RELATIVE IMPACTS OF HIGHER WOOD PRICES ON CONSUMERS

Land Economics



FIG. 1. Location of the alewife spawning grounds (Pausacaco Pond and Annaquatucket Pond) and the control stream (Fisherville Brook) used in this study. Detailed descriptions of Gilbert Stuart Brook and Pausacaco Pond have been given by Cooper (1961) and Gaines (1975). The Annaquatucket system has been discussed by Saila et al. (1972) and by Richkus (1974). Fisherville Brook is similar to Gilbert Stuart Brook and to portions of the Annaquatucket River (Durbin 1976).

Ecology

Tables

Follow same procedure for tables. Check text for style used for title, punctuation, rules, footnotes, abbreviations, etc.

EDITOR'S MARKS IN MANUSCRIPTS

<u>This mark</u>	<u>Means</u>
^	caret; this indicates where something is inserted (We have ^{<i>rarely</i>} collected <u>type as</u> We have rarely collected)
² ✓	superscript; type above line (r ² <u>type as</u> r ² ; see below ¹ ✓ <u>type as</u> see below ¹ or below ¹ /
⌞	subscript; type below line (P ₃ <u>type as</u> P ₃)
^,	insert comma
^;	insert semicolon
^:	insert colon
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=	insert hyphen (Douglas ⁼ fir, <u>type as</u> Douglas-fir)
--	insert dash (Three species ⁻ Douglas-fir, <u>type as</u> Three species--Douglas-fir,)
~ or ⌈	transpose (se ^{it} <u>type as</u> site; it <u>right</u> <u>was</u> <u>type as</u> it was right. ↑ Extensive changes in the order of phrases, <u>on the other hand,</u> may require marking like this.
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SPECIAL

NOTE

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spell out (two; United States)

use figure (3)

capital letter (C)

lower case letter (c)

all letters in each word following
the slash mark should be lower case
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places where paragraphs are not
indented, they are separated by
extra line space.

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